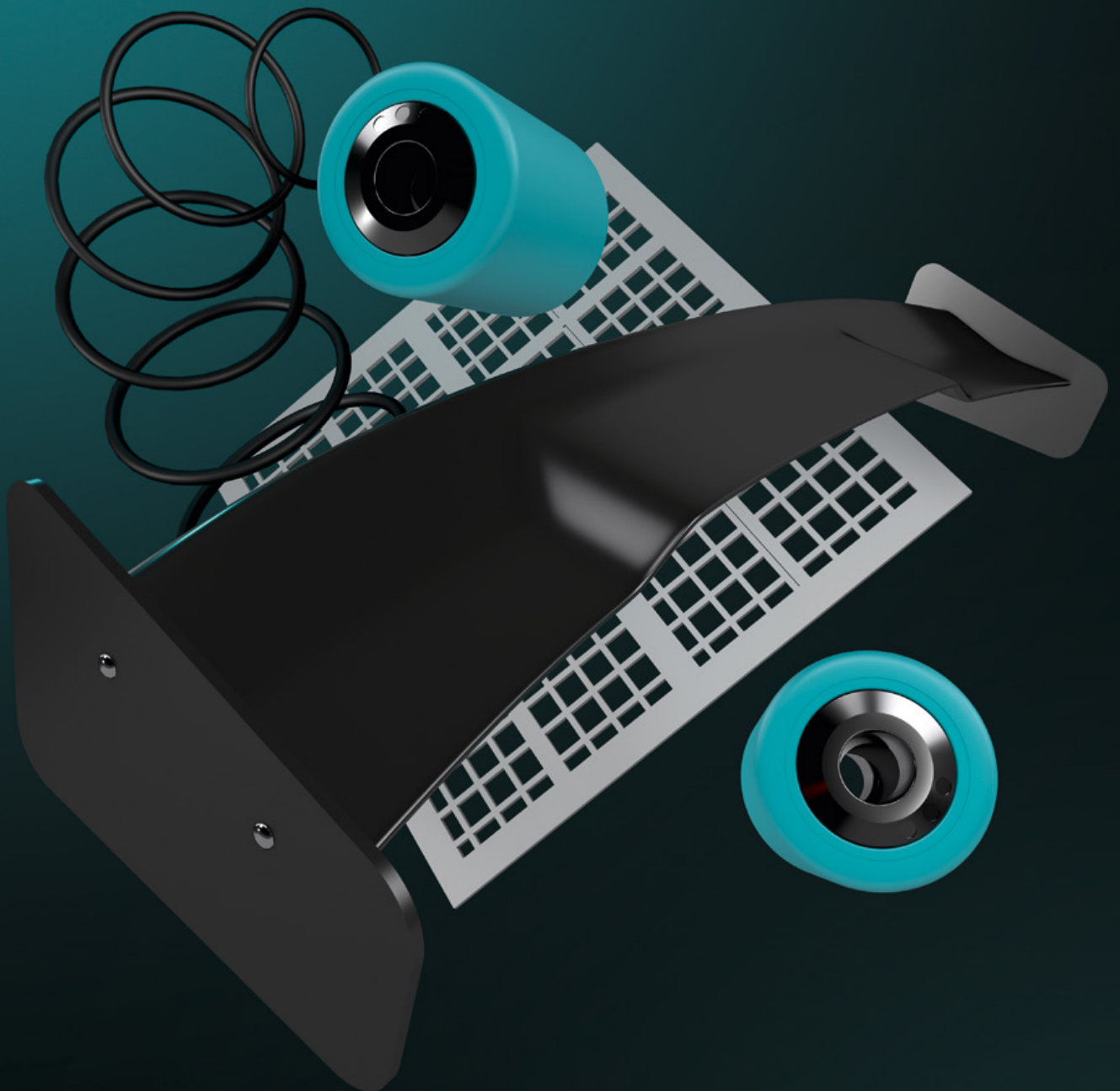


PLIXXENT.

Elastomer

UNLIMITED POSSIBILITIES



THIS IS PLIXXENT.

EUROPE'S LEADING INDEPENDENT POLYURETHANE (PU) SYSTEM HOUSE

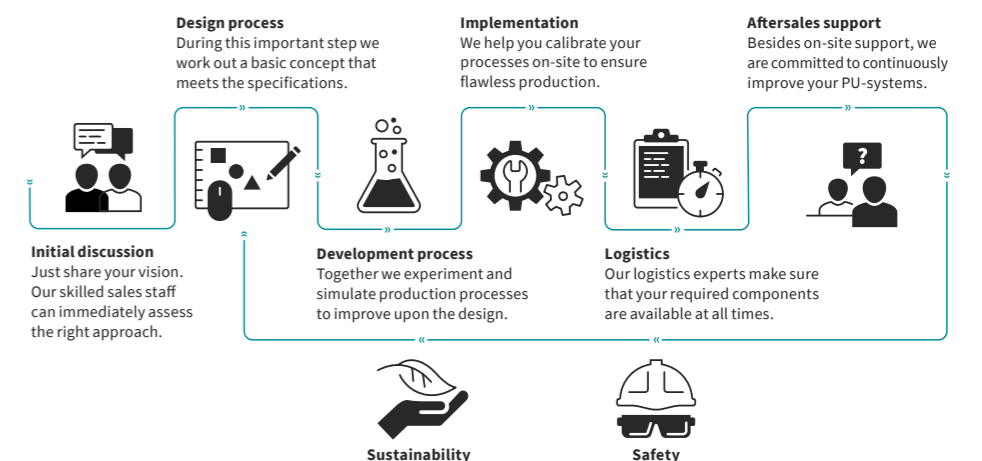
Polyurethane – We love it and we live it!

Each and every day, we are inspired by the great versatility of polyurethanes. We develop and improve innovative PU formulations for our customers with passion and dedication. What fascinates us most is helping our customers to simplify processes and make their products even more successful. Our expertise in the development and processing of polyurethanes, independent raw material procurement and a European team with decades of experience make us an excellent partner.

PLIXXENT IS YOUR PARTNER FOR INNOVATIVE PU SOLUTIONS

As a flexible company, PLIXXENT develops polyurethane systems that meet your needs. No matter how special or unusual your product requirements are. We very much look forward to working with you to find the right solution for your requirements.

WE BELIEVE IN WORKING WITH CLIENTS, INSTEAD OF JUST FOR THEM.



Partner on equal footing:

The development of customized polyurethane systems is a complex matter. We support our customers throughout the development process with individual technical and commercial service.

On-site service:

We support our customers in their local language and offer them on-site technical service. In addition, we train users in PU processing and the safe handling of PU raw materials.

Reliable and flexible production:

Whether for packaged or bulk delivery – our production flexibly adapts to customer needs. We deliver the required quantities quickly, reliably and on time.

In-house development department:

Our development department specialises in innovative and sustainable PU systems for new applications and markets.

In-house technical center:

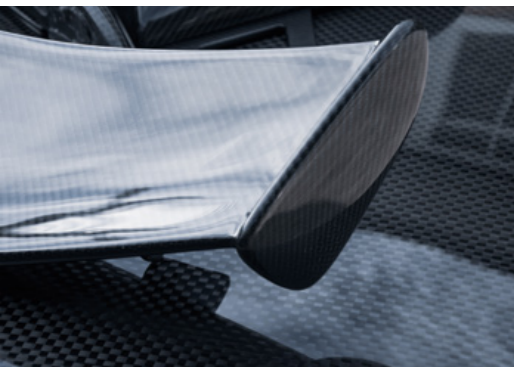
We know our customers' processes – thanks to our technical center. There, we recreate common PU processing methods for optimum customer service.

In-house test laboratory:

Precise knowledge of material behavior is indispensable for component calculation and development. In our test laboratory, we therefore determine the most important characteristic values of PU systems for our customers.

**PLIXXENT IS YOUR PARTNER
FOR JOINT SUCCESS!**

ELASTOMERS BY PLIXXENT. WE MAKE IT POSSIBLE.



PLIXXENT elastomers are part of the solution: Thanks to a wide range of specialty products and classic multi-component systems, we succeed in creating individual product solutions. For our customers, innovative product properties are at the top of the agenda. When it comes to meeting challenging customer needs, PLIXXENT's employees are committed to providing tailor-made service. Because that's how we make together even the impossible possible.

FEATURES & BENEFITS

Elastomer Systems	
Multi Component Systems	2K, 3K & 4K solutions
Easy Processing	Robust systems
Tailor-made Solutions	Best fit for your needs
Reliability	Good wet grip
Endurance	Abrasion resistance
Resilience	Good dynamic properties
Preserving	Good aging properties

MODULAR PRINCIPLE FOR OPTIMUM PERFORMANCE

The properties of polyurethane can be perfectly matched. According to the modular principle, individual formulations are created through the well thought-out selection of raw materials and additives.

In this way we adapt our polyurethane systems to the respective application of the customer. Properties such as hardness, reaction temperature and pot life can be optimally adjusted.

In addition, fillers vary the mechanical properties such as flexural and tensile strength. If particularly high elasticity is required, we use long glass fibers as fillers: systems to be used for S-RIM/R-RIM for lightweight components are given a high modulus of elasticity.

To ensure our PU applications are fire resistant, we use flame retardants. In this way we achieve fire resistance up to a classification of V-0 according to the US standard UL 94.

The use of special additives prevents components from becoming electrostatically charged or becoming electrically conductive. For lightweight automotive construction, we also offer PU spray systems for the production of high-strength sandwich components with a paper honeycomb core.

APPLICATION AREAS

- Agriculture
- Automotive
- Building & Construction
- Marine
- Material Handling
- Mining
- Oil & Gas
- Power Transmission
- Sport & Leisure
- Seals & Gaskets
- Wheels & Rollers
- Offshore

PROCESSING TECHNOLOGIES



- LP Spray
- HP Spray
- LP Casting (open & closed mold)
- S-RIM

AND MANY MORE!

PLIXXENT PRODUCT RANGE VARIABLE IN USE





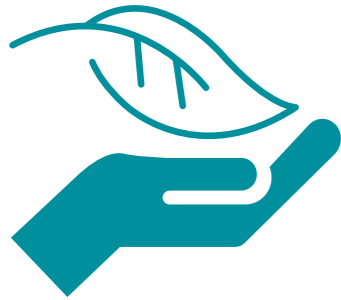
PRODUCT RANGE

Chemical Basis/ Product Name	Hardness Range	Properties	Pot LIFE
Classic Ether	Shore A15 – D65	<ul style="list-style-type: none"> Multi component system with excellent processability From soft to hard, slow to fast. Very short demoulding times possible Long open times No post-curing required Low cost system 	A few seconds to 12 hours
High-Performance Ether	Shore A50 – D75	<ul style="list-style-type: none"> Hydrolysis resistant high-performance ether Multi component system also available No post-curing required Excellent abrasion resistance, very good mechanical properties Antistatic version available 	A few seconds to 8 minutes
 Bio-based High-Performance Ether	Shore A50 – D75	<ul style="list-style-type: none"> Hydrolysis resistant high-performance ether Multi component system also available No post-curing required Excellent abrasion resistance, very good mechanical properties Antistatic version available 	A few seconds to 8 minutes
Classic Ester	Shore A45 – D 55	<ul style="list-style-type: none"> Classic ester system with very good dynamic properties Multi component system also available No post-curing required Excellent abrasion resistance achievable Very good mechanical properties Antistatic version available 	A few seconds to 10 minutes
High-Performance Ester	Shore A50 – D 55	<ul style="list-style-type: none"> High performance ester system with good dynamic properties Multi component system also available No post-curing required Excellent abrasion resistance achievable Very good mechanical properties Antistatic version available 	A few seconds to 10 minutes
 Bio-based Ester	Shore A45 – D55	<ul style="list-style-type: none"> Bio based ester system with very good dynamic properties Multi component system also available No post-curing required Excellent abrasion resistance achievable Very good mechanical properties Antistatic version available 	A few seconds to 10 minutes

RECOMMENDATIONS

Based on the needs of your specific application the material should have different performance characteristics. To give you a better overview and compare to your individual needs you can have a look below.

Chemical Basis	Abrasion Resistance	Chemical Resistance	Tear Resistance	Hydrolysis Resistance	Low Temperature Flexibility	Heat Resistance
Classic Ether	+	++	+	++	++	+
High-Performance Ether	+++	++	++	+++	++	+
 Bio-based High-Performance Ether	+++	++	++	+++	++	+
Classic Ester	++	+	++	-	+	+
High-Performance Ester	+++	+	+++	-	+	+
 Bio-based Ester	++	+	++	-	+	+



SUSTAINABILITY IS PART OF OUR DNA

Climate change is one of the most significant challenges facing humanity. At PLIXXENT, we take responsibility for meeting this challenge with innovative and sustainable processes, materials, and solutions, thus contributing to a future worth living. We work daily to create sustainable polyurethane formulations that pave the way to climate neutrality – for us and our customers.

PURE³ SOLUTIONS

POLYURETHANE SYSTEMS FOR A BETTER TOMORROW

Polyurethane is one of the most versatile materials suitable for various applications. Every year, twenty-three million tons are used worldwide to manufacture products. And consumption is expected to rise sharply. But like all synthetic materials, it is mainly produced from fossil sources. Or rather, it was.

PURE³ Solutions offers its customers a new range of high-quality polyurethane systems made from up to 94% reused, recycled and/or renewable raw materials for every application - whether flexible, rigid, foamed or compact.

In manufacturing and processing our sustainable polyurethane systems we rely on three main pillars regarding the raw materials and the production processes.

PURE³ SOLUTIONS



reduce

We are reducing the amount of fossil raw materials by using renewable, natural ones, e.g., producing polyols from plants and offering ISCC + certified mass balanced systems. In addition, we focus on energy and CO₂-saving production processes, both through the use of green electricity and certified natural gas at PLIXXENT, as well as through product design that reduces energy consumption in our customers' production.



recycle

There are currently only a few processes for recycling polyurethane, although the material is precious compared to other synthetic materials. With other high-class industrial partners and research partners such as the Danish Technological Institute and Aarhus University, we are tackling this problem with the PURfection research project funded by the Innovation Fund Denmark.

PURfection focuses on establishing a circular economy for polyurethane products. The aim is to break down polyurethane into its original building blocks and then use these directly as resources for producing new polyurethane on an industrial scale – avoiding landfills and drastically reducing the overall carbon footprint of the PU industry.



reuse

To minimize waste and achieve product circularity, we use recycled, end-of-life industrial and natural materials to produce our PURE³ solutions.

BIO-BASE IS THE NATURAL BASE OF PLIXXENT ELASTOMERS

PLIXXOPOL FC 4800C014
(PLIXXOADD N4119X & PLIXXONAT N4141)
Bio-based Ether system
with excellent mechanical properties



PLIXXOPOL FC 4800C013
(PLIXXOADD N4119X & PLIXXONAT N4163)
Bio-based Ester system
with good dynamic properties



Content of renewable raw materials up to 94 %	Content of renewable raw materials up to 93 %
All three main components contain Bio-based raw materials	
Hardness from SA 40 possible	Hardness from SA 45 possible
Excellent hydrolysis resistance	Very good Hydrolysis resistance
No tempering/post-curing required	
Can be processed on standard Cast Elastomer machines	
Excellent abrasion resistance achievable (by adding PLIXXOADD N4126D, our new and low viscosity anti-abrasion additive)	
Excellent mechanical properties	Very good mechanical properties
Antistatic version available	
2-, 3- & 4-component systems available	
Short demoulding times possible	

Sustainability measures are reflected & considered in every development project at PLIXXENT. We want to be able to offer the right option in the right moment.

ENERGY SAVING

Producing high quality PU Elastomers needs energy input in different steps: Producing the system components, processing of the articles and post-curing to increase the performance. Based on the composition and design of a system energy can be saved. For PLIXXENT it is a key goal to build these saving opportunities into our systems to the benefit of our customers, us and the environment.

NON FOSSIL RAW MATERIALS

90 % of the CO₂ footprint of our Polyurethane Elastomers is based on the raw materials. Only 10 % are the production of the system, producing the article and transporting. Therefore, we strongly work with raw materials from renewable and recycled sources. Increasing the content of these building blocks, like we do it in our bio-based systems, enables us to exchange up to 94 % of the main CO₂ driver.

CLOSING THE CIRCLE

For PLIXXENT Polyurethane and its benefits are clearly set to be part of the future. Therefore, we work towards closing the circle and move from a linear to a circular value chain. One key element is working in partnerships to transform together, i.e. to reduce waste by transforming it to be a valuable raw material.

»» **BIG IN EUROPE**

📍 **Headquarter**

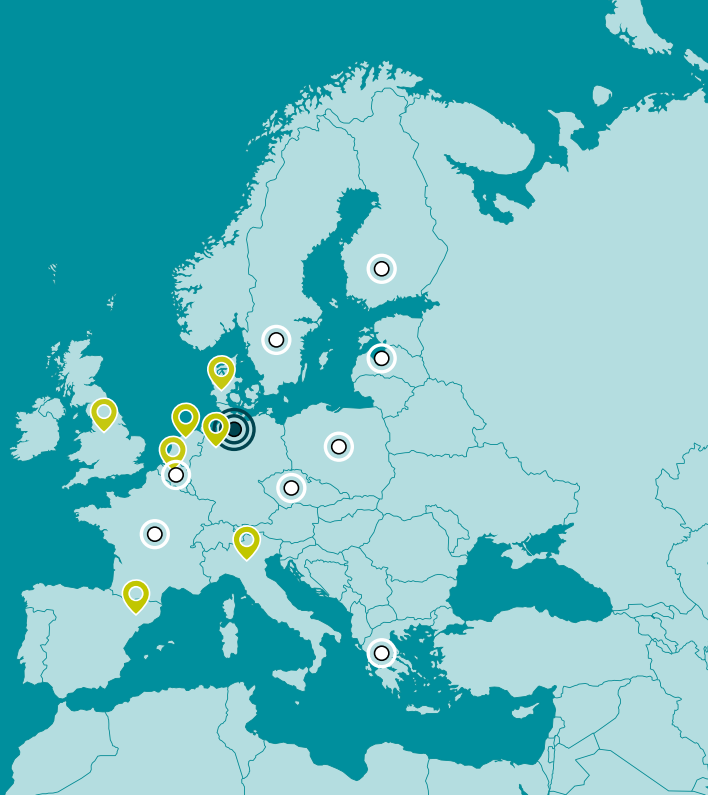
- Germany: Hamburg

📍 **Systems houses**

- Belgium: Gent
- Denmark: Randers
- Germany: Oldenburg
- Great Britain: Macclesfield, Cheshire
- Italy: Busto Arsizio
- Spain: Tarragona
- The Netherlands: Foxhol

📍 **Sales locations:**

- Belgium
- Czech Republic
- Finland
- France
- Greece
- Latvia
- Poland
- Sweden



PLIXXENT provides innovative technologies based on polyurethanes.

Specialising in standard as well as tailor-made systems, we accompany our customers throughout the entire value chain – from the initial consultation to the aftersales support.

Belgium

PLIXXENT Belgium BV
Booiebos 8, 9031 Gent
Phone +32 9 240 99 99

Denmark

PLIXXENT A/S
Kronborgvej 24, 5450 Otterup
Phone +45 63939393

Germany

PLIXXENT A/S
Alsvej 29, 8940 Randers
Phone +45 70 23 03 88

France

Projitherm S.A.R.L.
Imp. du Moulin, 80700 Roye
Phone +33 3 75 83 00 64

Germany Headquarter

PLIXXENT Holding GmbH
Gasstraße 18, Haus 5, 22761 Hamburg
Phone +49 40 357 78 46 00

Germany

PLIXXENT GmbH & Co. KG
Mittelkamp 112, 26125 Oldenburg
Phone +49 441 68 09 92 01

Great Britain

Polytech Liquid Polymers Limited
Nab Quarry, Long Lane, Pott Shrigley,
Macclesfield, Cheshire, SK10 5SD
Phone +44 1625 57 57 37

Italy

PLIXXENT S.r.l.
Via Massari Marzoli, 5
21052 Busto Arsizio (VA)
Phone + 39 0331 34 40 26

Spain

PLIXXENT S.L.
Polígono Químico Sur
Ctra. Vilaseca-La Pineda, s/n
PO Box, 83. 43110 La Canonja
Tarragona, Spain
Phone +34 977 13 43 77

The Netherlands

PLIXXENT B.V.
Korte Groningerweg 1A
9607 PS Foxhol
Phone +31 598 31 79 11

Contact: info@plixxent.com

Please find your representative on
www.plixxent.com

PLIXXENT.